

What is Claimed is:

- 1 1. A device for implantation in a body lumen comprising:
2 a prosthetic component comprising a graft having a hem formed
3 on said graft, wherein said hem defines an interior space; and
4 a cord disposed within said interior space for expanding upon
5 absorbing fluid for aiding in fixating said prosthetic component against said
6 body lumen.
- 1 2. The device of claim 1, wherein said prosthetic
2 component further comprises a stent disposed radially inside of said graft.
- 1 3. The device of claim 1, wherein said hem is disposed at a
2 distal end of said prosthetic component.
- 1 4. The device of claim 3, wherein said graft further
2 comprises a second hem disposed at a proximal end of said prosthetic
3 component and defining a second interior space and said device further
4 comprises a second cord disposed within said second interior space.
- 1 5. The device of claim 3, wherein said cord is in a
2 compressed state prior to being contacted with fluid.
- 1 6. The device of claim 5, wherein the thickness of said cord in the
2 compressed state is less than thirty thousandths of an inch.
- 1 7. The device of claim 1, wherein said cord has a flat
2 ribbon shape.
- 1 8. The device of claim 1, wherein said cord has a shape
2 selected from the group consisting of annular, circular, semi-circular, D-
3 shaped, rectangular, octagonal, trapezoidal, triangular, and square.

1 9. The device of claim 1 further comprising an outer
2 coating formed over said cord, wherein said coating dissolves upon exposure
3 to fluid for varying the rate at which said cord expands after deployment of
4 said device.

1 10. The device of claim 1, wherein said hem has holes to
2 adjust the porosity of said hem for allowing fluid to contact said cord.

1 11. The device of claim 1, wherein said hem is sufficiently
2 ductile to conform to irregular shapes.

1 12. The device of claim 2, wherein said hem is positioned to
2 allow said stent to protrude distally relative to said hem.

1 13. The device of claim 12, wherein at least one hoop of said
2 stent is distal relative to said hem.

1 14. The device of claim 1, wherein said graft has a first
2 permeability at areas remote from said hem and a second permeability,
3 greater than said first permeability, at said hem.

1 15. The device of claim 1 further comprising an attachment
2 tab having a first part attached to the graft and a second part extending
3 radially outward of said first part for attachment to an adjacent area of the
4 body surrounding the prosthetic component.

1 16. A device for implantation in a body lumen comprising:

2 a prosthetic component comprising a graft having an outer
3 periphery; and

4 at least one attachment tab having a first part attached to the
5 outer periphery and a second part extending radially outward of said first part

6 for attachment to an adjacent area of the body surrounding the prosthetic
7 component.

1 17. The device of claim 16, wherein said attachment tab is a
2 polyester, polytetrafluorethylene or bio-absorbable material.

1 18. The device of claim 16 further comprising a wire to
2 connect said attachment tab to said graft.

1 19. The device of claim 16, wherein said prosthetic
2 component further comprises a self expanding stent disposed radially inside
3 of said graft.

1 20. The device of claim 16, wherein said prosthetic
2 component further comprises a balloon expandable stent disposed radially
3 inside of said graft.

1 21. The device of claim 16, wherein said at least one
2 attachment tab comprises a plurality of attachment tabs and said device
3 further comprises at least one tab extension ring positioned along the outer
4 periphery of the graft to attach to the tabs for radially extending the tabs to
5 contact the adjacent area of the body.

1 22. The device of claim 16, wherein said attachment tab is
2 square.

1 23. The device of claim 16, wherein said attachment tab is
2 chevron.

1 24. The device of claim 16, wherein said attachment tab is an
2 integral part of said graft.

1 25. A method for implanting a device in a body lumen
2 comprising the steps of:

3 introducing a device into a body lumen, wherein said device
4 comprises: a prosthetic component comprising a graft having a hem formed
5 on said graft, wherein said hem defines an interior space; and a cord disposed
6 within said interior space for expanding upon absorbing fluid; and

7 contacting said cord with fluid to aid in fixating said prosthetic
8 component against said body lumen.

1 26. The method of claim 25, wherein introducing said device
2 comprises the following steps:

3 compressing the device into an introducer;

4 inserting the introducer into the body lumen;

5 positioning the introducer such that the compressed prosthetic
6 component is at a predetermined location within the body lumen; and

7 withdrawing the introducer to expand the prosthetic component
8 to its decompressed size at the predetermined location within the body lumen.

1 27. The method of claim 25, wherein contacting said cord
2 with fluid comprises the following steps:

3 aligning the outside circumference of the hem within the inside
4 diameter of the body lumen; and

5 removing an impediment to the flow of fluid within the body
6 lumen to said cord.

1 28. A method for implanting a device in a body lumen
2 comprising the steps of:

3 introducing a device into a body lumen, wherein said device
4 comprises a prosthetic component comprising a graft having an outer
5 periphery and at least one attachment tab having a first part attached to the
6 outer periphery and a second part extending radially outward of said first
7 part; and

8 attaching said second part of said attachment tab to an adjacent
9 area of the body surrounding the prosthetic component.

1 29. The method of claim 28, wherein the attaching step
2 comprises suturing said second part of said attachment tab to the adjacent
3 area of the body.

1 30. The method of claim 28, wherein said device further
2 comprises a wire for attaching said attachment tab to the outer periphery and
3 the attaching step comprises suturing said second part of said attachment tab
4 to the adjacent area of the body surrounding the prosthetic component after
5 the wire expands due to contact with a fluid.

1 31. The method of claim 20, wherein the attaching step
2 comprises the following steps:

3 sliding a tab extension ring having a spur axially along the outer
4 periphery of the prosthetic component; and

5 engaging said spur of said tab extension ring into a proximal
6 end pouch of said attachment tab for radially extending said attachment tab.

1 32. A device for implantation in a body lumen comprising:

2 a prosthetic component comprising a graft having a hem formed
3 on said graft, wherein said hem defines an interior space;

4 a stent disposed radially inside of said graft;

5 a cord disposed within said interior space for expanding upon
6 absorbing fluid for aiding in fixating said prosthetic component against said
7 body lumen;

8 at least one attachment tab having a first part attached to the
9 outer periphery of said graft and a second part configured for extending
10 radially outward of said first part for attachment to an adjacent area of the
11 body surrounding the implantation of the prosthetic component; and

12 at least one tab extension ring configured as part of the stent
13 along the outer periphery of the graft and attach to at least one tab for
14 radially extending the tab to contact the adjacent area of the body.

1 33. A device for implantation in a body lumen comprising:

2 a first prosthetic component comprising a first graft;

3 a second prosthetic component comprising a second graft
4 having a first hem, wherein said first hem defines an interior space and a
5 portion of said second prosthetic component is adapted to be disposed within
6 said first prosthetic component such that said first hem contacts the interior
7 wall of said first prosthetic component; and

8 a cord disposed within said interior space for expanding upon
9 absorbing fluid for aiding in fixating said second prosthetic component
10 against said first prosthetic component.

1 34. The device of claim 33, wherein said second prosthetic
2 component further comprises a second hem radially disposed around said
3 second prosthetic component proximal to the proximal end of said first
4 prosthetic component for resisting movement of said second prosthetic
5 component in the distal direction.